

## **STIC Biotechnology Systems Branch**

### **RAW SEQUENCE LISTING ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/561,005  
Source: IFWP  
Date Processed by STIC: 12/30/05

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/ebc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):  
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/24/05

## Raw Sequence Listing Error Summary

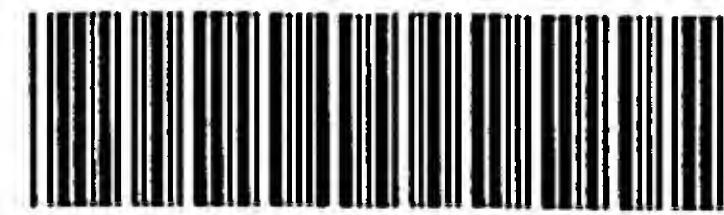
ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 10/561,005

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- |    |  |  |
|----|--|--|
| 1  | <input type="checkbox"/> Wrapped Nucleics<br><input type="checkbox"/> Wrapped Aminos | The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor <b>after</b> creating it. Please adjust your right margin to .3; this will prevent "wrapping."  |
| 2  | <input type="checkbox"/> Invalid Line Length   | The rules require that a line <b>not exceed</b> 72 characters in length. This includes white spaces.   |
| 3  | <input type="checkbox"/> Misaligned Amino Numbering                                  | The numbering under each 5 <sup>th</sup> amino acid is misaligned. <b>Do not use tab codes between numbers; use space characters</b> , instead.  |
| 4  | <input type="checkbox"/> Non-ASCII   | The submitted file was <b>not saved</b> in ASCII(DOS) text, as <b>required</b> by the Sequence Rules. <b>Please ensure your subsequent submission is saved in ASCII text.</b>  |
| 5  | <input type="checkbox"/> Variable Length   | Sequence(s) _____ contain n's or Xaa's representing more than one residue. <b>Per Sequence Rules, each n or Xaa can only represent a single residue.</b> Please present the <b>maximum</b> number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.   |
| 6  | <input type="checkbox"/> PatentIn 2.0 "bug"  | A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. <b>This applies to the mandatory &lt;220&gt;-&lt;223&gt; sections for Artificial or Unknown sequences.</b>   |
| 7  | <input type="checkbox"/> Skipped Sequences (OLD RULES)                               | Sequence(s) _____ missing. If intentional, please insert the following lines for <b>each</b> skipped sequence:<br>(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)<br>(i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)<br>(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)<br>This sequence is intentionally skipped<br><br>Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to <b>include</b> the skipped sequences. |
| 8  | <input type="checkbox"/> Skipped Sequences (NEW RULES)                               | Sequence(s) _____ missing. If <b>intentional</b> , please insert the following lines for <b>each</b> skipped sequence.<br><210> sequence id number<br><400> sequence id number<br>000  |
| 9  | <input type="checkbox"/> Use of n's or Xaa's (NEW RULES)                             | Use of n's and/or Xaa's have been detected in the Sequence Listing.<br>Per 1.823 of Sequence Rules, use of <220>-<223> is <b>MANDATORY</b> if n's or Xaa's are present.<br>In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.  |
| 10 | <input type="checkbox"/> Invalid <213> Response                                      | Per 1.823 of Sequence Rules, the only <b>valid</b> <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is <b>required</b> when <213> response is Unknown or is Artificial Sequence  |
| 11 | <input type="checkbox"/> Use of <220>  | Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses.<br>Use of <220> to <223> is <b>MANDATORY</b> if <213> "Organism" response is "Artificial Sequence" or "Unknown." <b>Please explain source of genetic material in &lt;220&gt; to &lt;223&gt; section.</b><br>(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)  |
| 12 | <input type="checkbox"/> PatentIn 2.0 "bug"  | Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.  |
| 13 | <input type="checkbox"/> Misuse of n/Xaa   | "n" can <b>only</b> represent a single <u>nucleotide</u> ; "Xaa" can <b>only</b> represent a single <u>amino acid</u>  |



IFWP

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/561,005

DATE: 12/30/2005  
TIME: 09:45:20

Input Set : A:\103-PCT1-US1.ST25.txt  
Output Set: N:\CRF4\12302005\J561005.raw

3 <110> APPLICANT: Paz Einat et al./Quark Biotech, Inc.  
 5 <120> TITLE OF INVENTION: Methods for cloning nucleic acids in a desired orientation  
 7 <130> FILE REFERENCE: 103/PCT1-US1  
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/561,005  
 C--> 10 <141> CURRENT FILING DATE: 2005-12-16  
 12 <150> PRIOR APPLICATION NUMBER: PCT/IL 2004/000515  
 13 <151> PRIOR FILING DATE: 2004-06-15  
 15 <150> PRIOR APPLICATION NUMBER: 60/479,224  
 16 <151> PRIOR FILING DATE: 2003-06-16  
 18 <160> NUMBER OF SEQ ID NOS: 14  
 20 <170> SOFTWARE: PatentIn version 3.2  
 22 <210> SEQ ID NO: 1  
 23 <211> LENGTH: 24  
 24 <212> TYPE: DNA  
 25 <213> ORGANISM: Artificial  
 27 <220> FEATURE:  
 28 <223> OTHER INFORMATION: Artificial DNA  
 31 <220> FEATURE:  
 32 <221> NAME/KEY: misc\_feature  
 33 <222> LOCATION: (21)..(24)  
 34 <223> OTHER INFORMATION: "n"=nucleotide A, T, G or C  
 36 <400> SEQUENCE: 1  
 WOK 37 gccatttaagg ccaccatgcc nnnn 24  
 40 <210> SEQ ID NO: 2  
 41 <211> LENGTH: 41  
 42 <212> TYPE: DNA  
 43 <213> ORGANISM: Artificial  
 45 <220> FEATURE:  
 46 <223> OTHER INFORMATION: Artificial DNA  
 48 <400> SEQUENCE: 2 41  
 49 catggtgcc ttaatggcca ctacgaccgt tcgggtggta c  
 52 <210> SEQ ID NO: 3  
 53 <211> LENGTH: 24  
 54 <212> TYPE: DNA  
 55 <213> ORGANISM: Artificial  
 57 <220> FEATURE:  
 58 <223> OTHER INFORMATION: Artificial DNA  
 61 <220> FEATURE:  
 62 <221> NAME/KEY: misc\_feature  
 63 <222> LOCATION: (21)..(24)  
 64 <223> OTHER INFORMATION: n=nucleotide A, T, G or C  
 66 <400> SEQUENCE: 3  
 WOK 67 gccatttaagg ccaccatgcc nnnn 24

*pp 1-4*

*Does Not Comply*  
*Corrected Diskette Needed*  
*(give source of genetic material)*  
*( see item 11 on Exam*  
*summary*  
*sheet)*

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/561,005

DATE: 12/30/2005  
TIME: 09:45:20

Input Set : A:\103-PCT1-US1.ST25.txt  
Output Set: N:\CRF4\12302005\J561005.raw

70 <210> SEQ ID NO: 4  
 71 <211> LENGTH: 41  
 72 <212> TYPE: DNA  
 73 <213> ORGANISM: Artificial  
 75 <220> FEATURE:  
 76 <223> OTHER INFORMATION: Artificial DNA  
 78 <400> SEQUENCE: 4  
 79 catggtgggc ttgccagcat caccggtaat tccgggtggta c 41  
 82 <210> SEQ ID NO: 5  
 83 <211> LENGTH: 21  
 84 <212> TYPE: DNA  
 85 <213> ORGANISM: Artificial  
 87 <220> FEATURE:  
 88 <223> OTHER INFORMATION: Artificial DNA  
 91 <220> FEATURE:  
 92 <221> NAME/KEY: misc\_feature  
 93 <222> LOCATION: (1)..(4)  
 94 <223> OTHER INFORMATION: n = nucleotide A, T, G or C  
 96 <400> SEQUENCE: 5  
 W-> 97 nnnnggtgag tgactgaggc c 21  
 100 <210> SEQ ID NO: 6  
 101 <211> LENGTH: 44  
 102 <212> TYPE: DNA  
 103 <213> ORGANISM: Artificial  
 105 <220> FEATURE:  
 106 <223> OTHER INFORMATION: Artificial DNA  
 108 <400> SEQUENCE: 6  
 109 cgaggagcga ccgactcgat ggccgaggcg gcctcagtca ctca 44  
 112 <210> SEQ ID NO: 7  
 113 <211> LENGTH: 21  
 114 <212> TYPE: DNA  
 115 <213> ORGANISM: Artificial  
 117 <220> FEATURE:  
 118 <223> OTHER INFORMATION: Artificial DNA  
 121 <220> FEATURE:  
 122 <221> NAME/KEY: misc\_feature  
 123 <222> LOCATION: (1)..(4)  
 124 <223> OTHER INFORMATION: n = nucleotide A, T, G or C  
 126 <400> SEQUENCE: 7  
 W-> 127 nnnnggtgag tgactgaggc c 21  
 130 <210> SEQ ID NO: 8  
 131 <211> LENGTH: 44  
 132 <212> TYPE: DNA  
 133 <213> ORGANISM: Artificial  
 135 <220> FEATURE:  
 136 <223> OTHER INFORMATION: Artificial DNA  
 138 <400> SEQUENCE: 8  
 139 actcaactgac tccggcggag ccggtagctc agccagcgag gagc 44  
 142 <210> SEQ ID NO: 9

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/561,005

DATE: 12/30/2005  
TIME: 09:45:20

Input Set : A:\103-PCT1-US1.ST25.txt  
Output Set: N:\CRF4\12302005\J561005.raw

143 <211> LENGTH: 21  
144 <212> TYPE: DNA  
145 <213> ORGANISM: Artificial  
147 <220> FEATURE:  
148 <223> OTHER INFORMATION: Artificial DNA  
150 <400> SEQUENCE: 9  
151 gtaccacccg aacggtcgta g 21  
154 <210> SEQ ID NO: 10  
155 <211> LENGTH: 13  
156 <212> TYPE: DNA  
157 <213> ORGANISM: Artificial  
159 <220> FEATURE:  
160 <223> OTHER INFORMATION: Artificial DNA  
163 <220> FEATURE:  
164 <221> NAME/KEY: misc\_feature  
165 <222> LOCATION: (5)..(9)  
166 <223> OTHER INFORMATION: n = nucleotide A, T, G or C  
168 <400> SEQUENCE: 10  
*OK* > 169 ggccnnnnng gcc 13  
172 <210> SEQ ID NO: 11  
173 <211> LENGTH: 13  
174 <212> TYPE: DNA  
175 <213> ORGANISM: Artificial  
177 <220> FEATURE:  
178 <223> OTHER INFORMATION: Artificial DNA  
181 <220> FEATURE:  
182 <221> NAME/KEY: misc\_feature  
183 <222> LOCATION: (5)..(9)  
184 <223> OTHER INFORMATION: n = nucleotide A, T, G or C  
186 <400> SEQUENCE: 11  
*OK* > 187 ccggnnnnnc cgg 13  
190 <210> SEQ ID NO: 12  
191 <211> LENGTH: 5  
192 <212> TYPE: DNA  
193 <213> ORGANISM: Artificial  
195 <220> FEATURE:  
196 <223> OTHER INFORMATION: Artificial DNA  
198 <400> SEQUENCE: 12 5  
199 aggcc  
202 <210> SEQ ID NO: 13  
203 <211> LENGTH: 5  
204 <212> TYPE: DNA  
205 <213> ORGANISM: Artificial  
207 <220> FEATURE:  
208 <223> OTHER INFORMATION: Artificial DNA  
210 <400> SEQUENCE: 13  
211 ccggg 5  
214 <210> SEQ ID NO: 14  
215 <211> LENGTH: 46

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/561,005

DATE: 12/30/2005  
TIME: 09:45:20

Input Set : A:\103-PCT1-US1.ST25.txt  
Output Set: N:\CRF4\12302005\J561005.raw

216 <212> TYPE: DNA  
217 <213> ORGANISM: Artificial  
219 <220> FEATURE:  
220 <223> OTHER INFORMATION: Artificial DNA  
222 <400> SEQUENCE: 14  
223 gaattggcca ttaaggcctg caggatccgg ccgcctcgac ctcgag

46

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/561,005

DATE: 12/30/2005  
TIME: 09:45:21

Input Set : A:\103-PCT1-US1.ST25.txt  
Output Set: N:\CRF4\12302005\J561005.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 21,22,23,24  
Seq#:3; N Pos. 21,22,23,24  
Seq#:5; N Pos. 1,2,3,4  
Seq#:7; N Pos. 1,2,3,4  
Seq#:10; N Pos. 5,6,7,8,9  
Seq#:11; N Pos. 5,6,7,8,9

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14

**VERIFICATION SUMMARY**  
PATENT APPLICATION: US/10/561,005

DATE: 12/30/2005  
TIME: 09:45:21

Input Set : A:\103-PCT1-US1.ST25.txt  
Output Set: N:\CRF4\12302005\J561005.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number  
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:37 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0  
L:67 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0  
L:97 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0  
L:127 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0  
L:169 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0  
L:187 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0